

IN THE SPECIFICATION:

Please amend page 1 of the specification by replacing the paragraph added in the Preliminary Amendment filed on April 14, 2004, with following paragraph:

This application is a Divisional of co-pending Application No. 09/557,902, filed on April 21, 2000, which issued as U.S. Patent 6,740,002 and for which priority is claimed under 35 U.S.C. § 120; and this application claims priority under 35 U.S.C. § 119 of Swedish Application No. 9703887-1 filed in Sweden on October 21, 1997 and International Application WO99/21263, filed on October 21, 1998 and published in English ~~under 35 U.S.C. § 119~~; the entire contents of all are hereby incorporated by reference.

Please replace the paragraphs beginning on page 7, line 4, as follows:

FIG. 1 is a block diagram of a conventional serial hybrid vehicle drive train system,

FIG. 2 is a block diagram of a conventional parallel hybrid vehicle system,

FIG. 3a is a block diagram of a conventional parallel serial hybrid vehicle system having a fixed transmission ratio between a thermal engine and the wheels of the vehicle,

FIG. 3b is a block diagram of a conventional parallel serial hybrid vehicle comprising two electric motors and a planetary gear device connected between a thermal engine and the wheels of the vehicle,

Please replace the paragraph on page 14, line 22, as follows:

At the time of writing, the automobile Prius manufactured by Toyota seems to be the most efficient hybrid powertrain vehicle known. Data given for the Prius are related to the fuel consumption when tested using the Japanese 10-Mode test cycle. The model of the powertrain of FIG. 4a has been run against the same (?) test cycle, see table 1, column F. The fuel consumption of the 1530 kg Prius is given as 28 km/litre whereas the simulation model indicates a consumption of 41 km/litre for a 1430 kg vehicle. Both simulations refer to a vehicle having a peak thermal engine efficiency of 38%, using high power NiMH batteries, two electric motors, low friction tires and a low Cd value (0.30 against 0.27). The mass of the Prius is based on verbal communications from competitors which have purchased a Prius.

Please delete the text on page 23, line 29, as follows:

~~A detailed design example~~

Please replace the paragraph beginning on page 24, line 3, as follows:

The right surface 610 of the electric generator/motor rotor acts as a component in a conventional clutch also including a conventional friction disc 611 and a pressure plate 612. In the engaged state shown, the friction disc 611 is fixed between surface 610 and ~~member~~ pressure plate 612. The torque from the thermal engine is transferred through vibration damping springs 613 to a spine 614 on the shaft 615 of the electric traction motor. The pressure on the pressure plate 612 is in the conventional way supplied by a spring 617. The clutch arrangement is quite conventional except that the ~~member~~ pressure plate 612 is much thinner than normal. This is possible because the heat dissipated is much less than in conventional clutches due to the almost synchronized speeds of the two shafts during clutch closure time.

Please replace the paragraph beginning on page 24, line 22, as follows:

The shaft 615 of the electric traction motor is rigidly attached to its rotor 620. The left part ends in a bearing 616 in the end surface of the shaft 601 of the thermal engine. The other end, i.e. the right part is radially attached to the input shaft 625 of the gearbox using a ~~PTFE~~ PolyTetraFluoroEthylene (hereinafter "PTFE") lubricated bearing 639. Axially it is fixed between the engine shaft bearing 616 and another PTFE lubricated ring 640 which transfers the pressing force to the input shaft 625 of the gear box through a vibration damping device 627. PTFE bearings are assumed to be sufficient since the relative rotation is limited to a few degrees. The surface material of the ring or winding head 640 should be selected to obtain a suitable damping of possible

oscillations between the rotor 620 of the electric motor and the input shaft of the gear box. The pressing force is provided by a disc or cup spring 638 648 which forces the bearing 616 in the engine shaft 601 to the right. During assembly, the outer ring part of bearing 616 is kept from falling out by the rotor 602. The vibration damper has a first element 627 torsionally fixed to the gearbox input shaft using a spline. A second element 628 is fixed to the rotor 620 of the electric traction motor and springs 629 connecting the elements act as damping elements.